

EMBOSSSED OPTICALLY VARIABLE DEVICES

ABSTRACT OF THE DISCLOSURE

A security device (3) and a method of forming a security device (3) is provided in
5 which a sheet (1) has a substantially transparent or translucent layer (10) and a reflective
layer (11) with at least part of the reflective layer (11) being visible through the transparent
or translucent layer (10) from a first side of the sheet (1). The sheet (1) is blind embossed
from the first side through the transparent or translucent layer (10) and onto the reflective
layer (11) to form a transitory embossed image (3). The transitory embossed image (3) may
10 be provided in a window or half-window (2) formed by applying one or more opacifying
layers (14) to the substrate (10) except in the area containing the reflective layer (11) and
transitory embossed image (3) on one or both sides of the substrate (10). In one
embodiment, the reflective layer is a highly reflective metallic ink (11). In another
embodiment, the reflective layer is an optically variable pigment (11a) which provides a
15 colour shift between two distinct colours with the colour shift dependent upon viewing
angle. In further embodiments, the transitory embossed image (41, 42, 43) comprises
macro-embossings (52, 53) with micro-embossings (54, 55) formed on the sides of the
macro-embossings (52, 53). Each of the embodiments of transitory embossed images
produces unusual visual switching effects which cannot be reproduced by photocopying and
20 which are difficult to counterfeit.